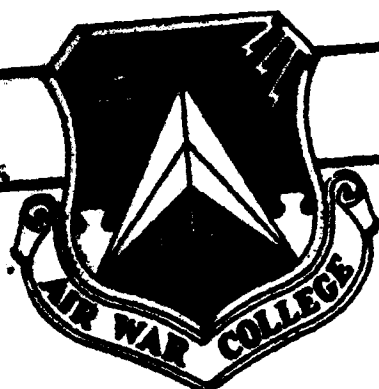


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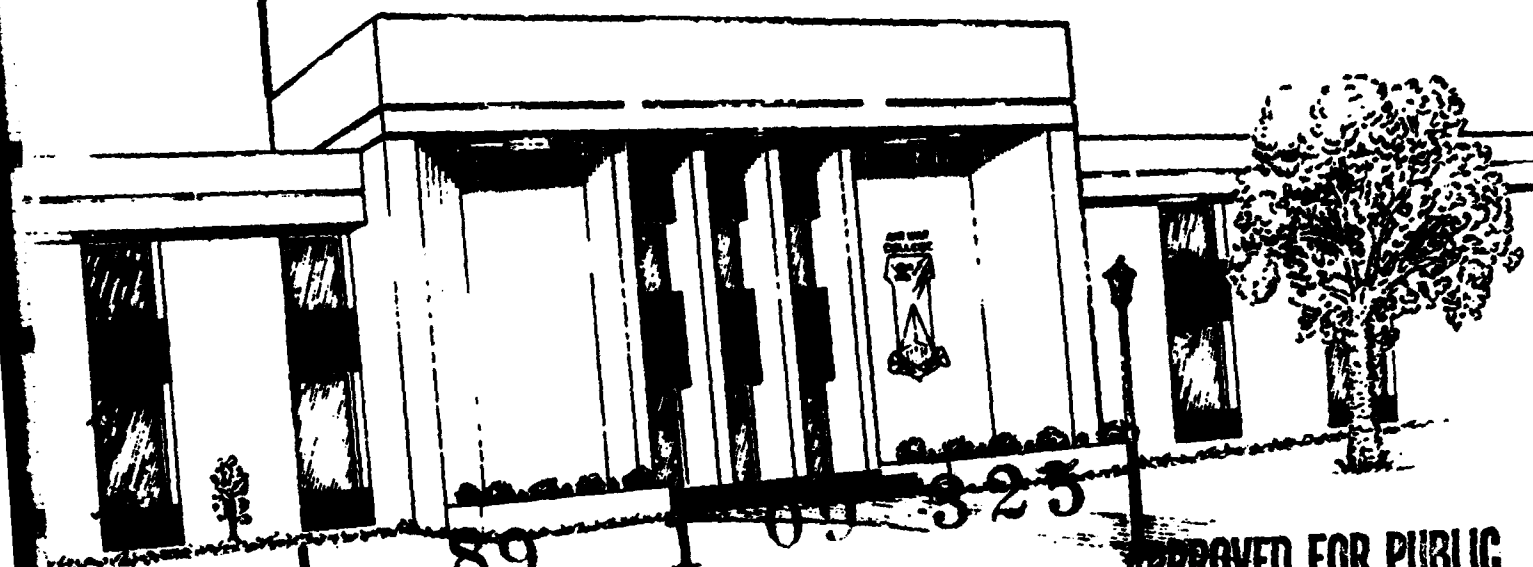
AIR WAR COLLEGE

RESEARCH REPORT

INTEGRATING STRATEGIC AND TACTICAL
AIRPOWER IN CONVENTIONAL WARFARE B-52
EMPLOYMENT

LIEUTENANT COLONEL D. D. KARLE
AND
LIEUTENANT COLONEL J. B. HALL

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AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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INTEGRATING STRATEGIC AND TACTICAL AIRPOWER
IN CONVENTIONAL WARFARE
B-52 EMPLOYMENT

by

LTC D. D. Karle
LTC J. B. Hall

A RESEARCH REPORT SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE RESEARCH
REQUIREMENT

Research Advisor: Colonel William Moore

MAXWELL AIR FORCE BASE, ALABAMA

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: INTEGRATING STRATEGIC AND TACTICAL AIRPOWER IN
CONVENTIONAL WARFARE--B-52 EMPLOYMENT

AUTHORS: Julian B. Hall, Jr., Lieutenant Colonel, USAF and
Donald D. Karle, Jr., Lieutenant Colonel, USAF

Thesis
Beginning with a historical review of the United States strategic airpower employment in combat from World War I through the post-Vietnam periods into the mid-1980s, this paper then presents Strategic Air Command's (SAC) recent initiatives to regain a viable conventional warfighting capability for the B-52 bomber. A discussion of SAC's new warfighting strategy and concept of operations is followed by the authors' views of integrating B-52 forces into the modern conventional combat arena.

Addressing the attributes of the B-52 in conventional operations, this paper advocates the importance of the heavy bomber in future, integrated, conventional warfare.

Proposed as a research report

BIOGRAPHICAL SKETCH

Lieutenant Colonel Julian B. Hall, Jr., is a United States Air Force command pilot with over 3,500 hours of B-52 bomber flying experience. During the Southeast Asian conflict, he accumulated over 100 combat missions in the B-52 D and G model bombers. He has served in numerous bomber operations assignments at the Wing, MAJCOM and joint levels. Colonel Hall was a former commander of the 20th Bombardment Squadron and served as SIOF advisor in Strategic and General Operations, Organization of the Joint Chiefs of Staff. Prior to coming to the Air War College, he was the Deputy Director of Electronic Combat, Test and Tactics at Strategic Air Command (SAC) Headquarters where he was directly involved in SAC's new conventional plans and programs.

Lieutenant Colonel Donald D. Karle, Jr., is also a United States Air Force command pilot with over 3,000 hours of B-52 bomber flying experience. Colonel Karle has flown the B-52 D,F,G and H model bombers. During the Viet Nam War he flew bombing missions from Thailand and Guam and has over 500 hours combat time in the B-52D. He has served in operational assignments as a B-52 instructor pilot, flight

commander, operations officer and squadron commander. Most recently he was the Assistant Deputy Commander for Operations at the 7th Bomb Wing. Colonel Karle also has experience as an Air Staff Planner in Plans and Operations, at Headquarters Air Force, where he worked numerous issues dealing with bomber force structure, funding and employment.

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CHAPTER I

INTRODUCTION

For more than 30 years, the B-52 "Stratofortress" bomber has served with distinction as a vital member of the United States Air Force's strategic deterrent force. Today, it continues to carry on it's nuclear TRIAD responsibilities. But, the B-52 has also established capabilities as a long range, heavy, conventional, weapons delivery system. Beginning in the mid-1960s, B-52s were employed in Southeast Asia as high-altitude, conventional bombing platforms. By the end of the U.S. involvement in that war, the B-52 D and G model bombers had participated in thousands of combat missions and dropped countless tons of conventional ordinance. One of the bomber's proudest moments is recorded in history as the "Eleven Day War" in December, 1972. In that grueling bombing campaign the B-52 clearly displayed both it's awesome destructive capability, as well as it's ability to withstand tremendous battle damage.

Today, the B-52G models are the only remaining operational bombers that flew in Vietnam. The famous "tail-tail" D models were retired from the U.S. warplans in October 1983, and within months they were sent to the

boneyards, never to fly again. That same fate will soon come to pass for our active duty B-52Gs, unless action is taken now to change these retirement plans.

This paper advocates integrating the B-52 into the conventional theater as a long-range, large-capacity, weapons delivery system, uniquely suited for deep-attack missions beyond the enemies' first echelons. The Strategic Air Command has astutely applied the "lessons learned" from past bombing campaigns in formulating flexible, employment strategies and modern tactics that now allows the theater commander to strike important target areas, deep behind enemy lines. The B-52 is the most feasible weapons system for that mission today, and in the near future. Therefore, decisions must be made now to fund and maintain adequate numbers of B-52s to accomplish the conventional missions.

CHAPTER II

HISTORICAL BACKDROP

The New Weapon

Since the first airplane dropped the first bomb in World War I, the debate has raged on how to best use the airplane on the modern battlefield. While World War I was little more than a test bed for an infant technology it did provide the visionaries with hard evidence that the airplane would be a major player in any future warfare. If there was any doubt as to the potential of aerial warfare, following World War I, Billy Mitchell pretty much put this to rest when he put the German battleship Ostfriesland on the ocean floor with aerial bombardment. Now the stage was set for the debate that raged throughout the 1930s.

Theories and Dreams

Military theorists and novelists alike began to write of great air armadas and air battles. Air ships, as they were called by H.G. Wells, were envisioned to be able to turn cities into ruins while sailing serenely overhead. Giulio Douhet was particularly inspired by this vision of air

armadas and in a series of articles and his book, "Command of the Air", he persuasively put forth his theories. He envisioned great fleets of "battle planes" that were self defending and in essence unstoppable. (8:123) He saw them raining havoc from the skies on unwary populations and industrial centers and breaking the enemies will as well as destroying their armies and air forces. Somewhat later a group of Americans teaching and studying at the Air Corps Tactical School at Maxwell Field, Alabama were also caught up in this vision.

American Ideas

Strongly influenced by Mitchell and Douhet they began to develop the American idea of strategic bombardment. While they wrestled with the bureaucracy that thought that the Air Corps should be an auxiliary of the army they developed the doctrine of strategic bombardment and the idea that an enemy could be defeated by air operations alone. Air superiority would be needed to prevent the enemy from attacking your homeland and with this accomplished you would be able to bomb the strongest adversary into submission. (8:18) With this as the center piece of aerial doctrine, the Air Corps began to develop and build the force structure to carry out these plans and theories. Bomber prototypes began to roll off drawing boards and out of

factories. Big, fast, and heavily armed, these bombers could fly faster and higher than contemporary pursuit aircraft, and so it seemed that the theories would become reality. Integration in the conventional battle seemed that it would take the shape of strategic air fleets pounding the enemies will, and his means to make war, into dust. However, the theory of strategic bombardment, by great air fleets of self-protecting bombers, would soon be tested in the crucible of war over Germany.

WORLD WAR II

Testing the Theories

By the time American airmen began to arrive in England and fly their early bombing missions into France, the English had already fought the Battle of Britian, turned back the German bombers, and learned that unescorted bombers made an excellent target for modern fighter aircraft.

(24:192) However, the Americans felt that all earlier operations had not used formations of sufficient size for self-defense and so they pursued their theories of daylight precision bombing by large formations of unescorted

bombers. "As General Eaker had written to General Arnold in October 1942, Eighth Air Force commanders were absolutely convinced that...300 heavy bombers can attack any target in Germany with less than 4% losses." (9:105) Early raids seemed to bear out the American theories. The Germans weren't quite sure how to attack the American bomber formations and weren't very successful in defending against the large bomber raids. It seemed as if the American theories on how to use the bomber and integrate it into the battle were valid. But the Germans finally designed tactics that would counter the American formations and when the Americans bombed Schweinfurt and Regensburg in August 1943, the German fighters brutally punished the unescorted bombers. Attrition was 16 percent--an unacceptable level. (9:99) However, the targets at Schweinfurt were judged to be worth the risk and in October, 1943 the 8th Air Force again went deep into Germany without fighter escort. This second Schweinfurt raid was a disaster. Attrition was over 28.2 percent. (9:99) At this rate, the 8th Air Force would have been out of bombers in three months. It was now painfully clear that the early theory of indestructable, self defending, bomber armadas was just that--a theory. The war was not going to be won by bombers alone. They would

have to be integrated into the whole battle. They would be a part of the solution to the problem but not the only solution.

Lessons Learned

It was during these great air battles over Germany that we learned hard, bitter lessons. Those lessons taught us that while the heavy bomber was a devastating weapon, it could not do the job alone. It must be integrated into the battlefield and used in a way that maximized its strengths and minimized its weaknesses. An important thing that we learned was that the employment of strategic air was scenario dependent. Some targets were suitable for unescorted attack but others required escort. With the right mix of escort aircraft the bombers could hit any target successfully and with an acceptable attrition rate. (9:105-110) However, the advocates of strategic bombardment still resisted the use of the bomber in any role other than a strategic one. "Even though bombers had enjoyed notable success in World War II in aerial mining, sea surveillance, and battlefield interdiction, strategic bombing advocates attempted during the war to restrict these other roles, viewing them as an interference and ultimately a hinderance to the bombing campaign." (16:6) When World War II ended this was still felt to be the case and with the advent of the atomic bomb

this new weapon would renew the focus on strategic bombardment as the center-piece of any future war. "The drive for air force autonomy and the strategic potential of the atomic bomb silenced talk of other roles for the long range bombers." (16:6) The idea of integration stepped back into the time of unescorted bombers being the deciding weapons of war.

KOREA and VIETNAM

New Weapon, New Wars

While we grappled with this new weapon (the atomic bomb) and how it had again made strategic bombardment seem to be the way to win wars, our attention was diverted with a new type of war. Limited war, where the "bomb" couldn't be used. So we were back to how do we best integrate the strategic bomber into the battlefield. In Korea we would learn some new lessons on integration and happily we did not forget the lessons we learned in World War II. "In a little more than a month the FEAF (Far East Air Forces) Bomber Command had neutralized all but one strategic bombing objective contributing support to the North Korean People's Army." (12:195) However, this did not stop an enemy who was

receiving most of its supplies from allies. "In early July 1950, it was already evident that the North Korean Peoples Army was drawing a major proportion of its logistical support from Communist production centers beyond the borders of Korea, sources which were off limits to American strategic bombers." (12:183) Therefore, we couldn't get at the strategic targets that provided the means for our enemy to carry on the war as we had done in Germany. The main role of strategic bombardment became one of interdiction. "General Stratemeyer made Bomber Command specifically responsible for coordinating the strategic interdiction effort in North Korea." (12:126) The targets were rail yards, bridges, roads, choke points, troop concentrations. (12:126) When we ran out of interdiction targets, we used the bombers for close air support. In fact, it was here in Korea that the rules for engagement for strategic bombers in the close air support role were clearly spelled out: "Sufficient ceiling for visual bombing, an avenue of attack parallel to the front lines, a clearly defined bombline ... and definite intelligence." (12:139)

It was now clear to all that if we were to use all of our scarce resources to full advantage, no longer could the strategic bombers carry on a second front war almost autonomous from what was happening daily on the battlefield. They had to be responsive to the needs of the ground

commanders and had to be integrated into the overall battle. In Korea this really didn't present any real problem. In fact, the biggest obstacle was the lack of accurate, timely intelligence. For example, when Bomber Command put up a maximum effort at Waegwon, to bomb a suspected concentration of "40,000 Communist" troops, "98 B-29s" bombed an open field that the North Koreans had left days earlier. (12:139) Timely integration of strategic air assets would continue to be a problem throughout this war and the next. As the Korean War ended, the Air Force added to its learning curve on how to use strategic assets on the modern battlefield. No longer were we locked to the mindset of the 1930s and its theories on strategic bombardment. However, those theories were still seductive.

Interwar Period

After the Korean War ended, and we demobilized again, we began to look for a cheap way to fulfill our newly won role as protector of the free world. And nothing was more attractive than the use of nuclear weapons delivered by a fleet of strategic bombers. While expensive, in reality this was defense on the cheap. No large standing armies and elaborate conventional force structures would be needed. We again listened to the siren song of untouchable air fleets sailing over our enemies. Only this time they would be

armed with nuclear weapons. We had in essence returned to the days of the Air Corps Tactical School theories on strategic bombardment as the answer to warfare. Our force structure reflected this revival.

The Strategic Air Command became the dominate command in the Air Force and, in fact the entire armed forces.

SAC's increases from 1949 to 1954 were as follows: 1949, 71490 personnel, 868 aircraft and 17 CONUS bases. 1954, 189106 personnel, 2640 aircraft and 30 CONUS and 11 overseas bases. The fiscal year 1955 budget called for expanding the Air Force from 114 wings in 1954, to 120 wings in 1955, and to 137 wings by 1957. At the same time, the budget called for a 13 percent manpower cut for Army, Navy and Marine Corps in 1955, with further cuts the next 2 years. (16:14)

SAC even had its own fighters, because we remembered that when our bombers were finally challenged by a determined fighter force, that they suffered terribly. Fighter aircraft also had to be capable of delivering nuclear weapons. In fact, they possessed little conventional capability. For example, during the 1958 crisis in Lebanon, tactical aircrews of F-100s and B-57s that supported the operation, "...were all qualified in nuclear weapons delivery, but none of the F-100 pilots had ever practiced dropping conventional bombs." (16:16) That is why we bought fighters like the F-105 which was little more than a mini-bomber. That old vision of bombers working autonomously on a second front, isolated from the day-to-day grind of the tactical battlefield was again in vogue.

And for this very reason the process of how to integrate the strategic bomber into the conventional battlefield was pushed into the corner to languish until Vietnam.

Another Limited War

Vietnam was, like Korea, another limited war. Another war where the enemy had few strategic targets and most of their supplies came from allies in sanctuary. However, unlike Korea, heavy bombers would not hit any of our enemies strategic targets until the end of the war. Instead, we would send tactical aircraft against what had always been strategic targets in the past, and use strategic air against traditional tactical air targets. (29:24)

In many ways Vietnam was a strange war. Why did we withhold strategic air from the strategic targets for so long? We think it is because the U.S. had made such a center-piece of strategic nuclear bombers that Washington felt it would be escalatory, and if unsuccessful, it would seriously undermine our strategic nuclear deterrent capability. General Momyer, commander of 7th Air Force in Vietnam from 1966 to 1968, commented on our reluctance to use B-52s over North Vietnam. "The U.S. civilian leadership was concerned about the effect of losing even a single aircraft would have on the image of our strategic deterrent." (29:24) Strangely enough, strategic bombardment was held hostage by its own theories in Vietnam. The result

was that it was now targeted against those targets that would require careful integration into the conventional battlefield. One bright point is that the Air Force did have the experience of Korea and World War II to fall back on, and we didn't have to relearn painful, old lessons. From January 1965, when the 4252nd Strategic Wing began operations from Kadena Air Base on Okinawa, until August 1973, (when one of this paper's authors flew, one of the last B-52 missions in Southeast Asia from the 307th Strategic Wing at U-Tapao Airfield in Thailand), the Air Force would develop and polish ways to integrate strategic bombers into the conventional battlefield. (1:126)

When the battle took the bombers to the South or into non-threat areas, the bombers went as they always had, alone. Most of the interdiction and close air support missions were in non-threat areas, perhaps with the notable exception of the bombing during operation Lam Son 719 in the spring of 1971. Most integration was simple and only required the mixing of the proper intelligence, mission requests, and conflict free timing. More complex was the close air support operations which required pinpoint coordinates, accurate timing, and conflict-free drop times. The most complex missions were naturally any raids that took the bombers over the heavily defended North. The Air Force had not forgotten the lessons learned by the crews of the 8th Air Force over Germany.

So during Vietnam, raids over the North consisted of elaborate support packages. A typical support package on day eight of the Linebacker II operation consisted of Air Force F-105s and Navy A-7s for Ironhand support, F-4s acting in a hunter/killer role as well as chaff dispensing, chaff escort, Mig CAP. There were Air Force EB-66s, EA-6Bs from the Navy, EA-6As from the Marines, and EA-3As from the Navy for ECM support. (18:124) Putting this support package together with 90 or more bombers required split-second timing, extensive coordination and meticulous planning to successfully integrate such a force. In reality it was the politics of this war that drove the type of integration required to put heavy bombers into action. (29:24) The tactics and operational considerations were all ones we had learned previously. Updated for technological improvements, and shaped to take advantage of the equipment, the basics remained the same. However, this war, like Korea, saw the United States with an overwhelming superiority in the air the ability to dictate the scope and timing of the air battle. This will not necessarily be the case in the future and the integration of the bomber into the conventional battlefield will not always be an easy task.

Post Vietnam

After Vietnam, like Korea, we again turned our attention to the nuclear battlefield. The bomber was returned to its nuclear mission, and by 1984, we had put the most capable of the conventional B-52s, the B-52D, into mothballs, or sold them for scrap. (In the spring of 1984 the authors watched the last of the Ds flown off to static displays, the boneyard at Davis Monthan AFB, or cut into scrap at Carswell AFB, Texas.) By 1984, the Air Force had only a very modest conventional capability left in its bomber force. In fact it could more accurately be called potential rather than capability. We had retired an airplane that could carry 108 conventional bombs and that had been updated with a new digital bombing system. What we had left was a fleet that had updated avionics but that could not even carry conventional bombs on all bombing stations. (26:3) The only serious thoughts on integration were given to the nuclear mission. With the exception of some development of the collateral missions supporting the Navy and a small force called the Strategic Projection Force, little was done conventionally until 1986 when subtle changes began to take place.

CHAPTER III

REGAINING CAPABILITY

Changes in Emphasis

SAC commanders had always realized the conventional potential residing in their bomber fleets but had little money to keep this conventional capability up to date. With the exception of the small Strategic Projection Force, of approximately 40 to 45 airplanes, and a small anti-ship capability the majority of the SAC B-52 fleet remained basically a nuclear striking force. (26:A5) The nuclear mission had always used up the resources. However, by 1986 subtle changes were beginning to take place.

When the warfighting CINCs were polled in 1986, they felt that they definitely had a need for heavy bombers to support them conventionally. Additionally, B-52s were tasked in 11 different OPLANs. But at that time SAC had less than 90 B-52s conventionally committed. (26:1) The majority of the command's B-52s were committed strictly to the nuclear mission with the majority of the crews only trained on nuclear delivery procedures. As the Intermediate Range Nuclear Forces Treaty (INF) talks proceeded, the leadership in the command saw the growing need for a real conventional capability. (2:20)

The conventional potential of the B-52 would need to be turned into conventional capability. If the intermediate nuclear forces (INF) treaty were to become reality, the B-52 could possibly be postured to fill the firepower gap that was sure to follow. Additionally, the Lybian raid brought home the fact that any future operations of this type may have to be conducted from bases in the U.S. With this motivation the command set about to regain its full conventional capability.

SAC Takes Action

In the fall of 1986, HQ SAC notified all B-52 and FB-111 units that they would receive tasking to support a secondary conventional capability starting 1 January 1987. By 1 January 1987, 50 percent of each unit's aircraft and sufficient crews to support the aircraft would be tasked against a secondary designed operational capability (DOC). By 1 April 1987, 100 percent of each units crews were to be trained in conventional tactics and in March of 1987 SAC introduced a conventional requirement into their operational readiness inspections. (26:2)

B-52 Enhancements

As of November, 1986, the conventional capability of the B-52 fleet was 69 Gs fully conventional capable--meaning

that the aircraft had internal and external capability allowing it to carry up to 51 general purpose bombs, 2000lb class munitions, mines, or harpoon missiles. The remaining Gs all had a limited conventional capability--meaning that the aircraft could only carry conventional munitions internally. (26:3) There was also a mix of H's ranging from fully capable, but only modified to carry up to 1000lb class munitions, and Hs with only a limited conventional capability. SAC decided to bring more B-52s up to full conventional capability as soon as possible. The number to be modified would be consistent with the minimum needed to support the needs of the warfighting CINCs. In their eyes a robust B-52 conventional fleet would consist of a mix of Hs with internal and external capability, Gs with internal and external capability and G model air launched cruise missile (ALCM) carriers with an internal only, conventional capability. (26:A5) In addition to increased carrying capability, the SAC planners envisioned a lethal self defense missile for killing threat emitters and a new standoff weapon to be fielded in the 87-90 time frame. In addition, the aircraft would be equipped with the a full electronic countermeasures suite and improved chaff. By 1990 it is envisioned that the fleet could be carrying up to 30 missiles each for self-defense. (26:C1) With a fleet of B-52s postured in this manner the SAC staff felt as if they could support the needs of the warfighting CINCs.

Support for the Warfighters

In addition to a robust fleet of conventional bombers, the SAC staff felt that as the B-1 took over more and more of the nuclear commitment for the first time the B-52 could be released to the theater CINC. Allowing him, for the first time, to count on the definite availability of the aircraft in his plans. Since CINCSAC has no unilateral regional responsibility SAC would provide the supported commander with an advance planning team to advise and recommend the most effective use and employment of the bomber forces. The command lines would be from the supported CINC, through the ADVON, to the Numbered Air Force who would resolve any issues on employment between the ADVON and the supported commander. A wiring diagram might look like:

SUPPORTED CINC

|

ADVON

|

NAF

|

CINCSAC

With a force of this kind available, then the question arises on where and how would they be used? (26:E5)

Feasibility

The size of the B-52 has always presented a problem for planners. Load bearing weight for ramps, runways, and taxiways has always been a special consideration wherever the aircraft has been bedded down. Runway length, taxiway width, ramp space, and fuel and water have also been special considerations. However, using a concept whereby the aircraft are deployed in small packages of "7 aircraft per package", (27:5) "using 9000ft long by 147ft wide runways with 75 foot wide taxiways" (28:25L)... there are 27 European bases alone that the B-52 could operate from. (28:26L) In addition, all 27 bases have the load bearing capacity and ramp space needed to hold the B-52.

Used in any European scenario, the aircraft could be employed at far less than maximum gross weights and still carry enough fuel so that air refueling would not be needed. Reminiscent of the Vietnam era operations from U Tapao, the aircraft could strike targets deep into the enemy landmass, without air refueling, and still be well below its maximum gross weight capabilities. Conceivably, a strike force of B-52s could be launched from CONUS bases, be air refueled in route, strike a preplanned target anywhere in the world, and then recover in-theater or return to the CONUS. If deployed to Europe, the only refueling would take place on the

initial deployment then unrefueled operations would begin from European bases. (7:28) In the Pacific, air refueling would probably be needed on every sortie depending on the main operating base, targets and employment tactics.

It is envisioned that this conventional force would be permanently based in five large wings within the CONUS. Each wing would have 24 to 35 B-52 aircraft assigned. (27:22) This force would then be structured and manned to support the deployment packages of seven aircraft. The wing staff would be pushed down to squadron level where they would be distributed to support the deployed packages. The crew ratios would also be adjusted to support the conventional operations. These flights would then be self-sufficient and fully deployable.

By utilizing theater CINC target lists, the units could pre-plan at their stateside bases and be ready to attack these pre-planned targets on a deployment sortie and continue operations immediately after beddown. By using pre-coordinated frags, the unit is ready to conduct sustained operations immediately. The unit would also have the organic ability to replan and accept new missions without losing any operational time. Deployed with the unit will be a war readiness spares kit (WRSK) to support operations. (26:A9)

CHAPTER IV

HOW TO FIGHT

SAC Role in Conventional War

The Strategic Air Command, under the guidance of the CINC, has rapidly developed the command's conventional capability. By increasing the number of bombers committed to conventional operations, and increasing the capabilities of the aircraft and crews, a real, near-term capability has been established. By increasing the employment flexibility of the bomber, the command has greatly increased its ability to play a major role both tactially and strategically in theater operations. By taking a fresh look at command relationships, the willingness of SAC to release B-52s to a theater commander gives the supported commander a degree of flexibility he never before possessed when it came to long range bombardment capability. The theater commander, heavily tasked with offensive counter air, air interdiction, and maritime responsibilities, would now have an assured capability he never had before. By being able to count on a force of B-52s early in the war, he could have massive firepower on the target, early enough in the battle to shape the outcome of the conflict.

Strategic Area of Responsibility (SAR)

Using a new concept called SAR, the SAC planners have envisioned that the theater CINCs would designate areas within their responsibility where they could use B-52s. It would be a fluid area that would change with the operational situation, but the key would be that it would be outside the range of tactical fighter-bombers. Conceivably this would give the theater commander the ability to attack second and third echelon forces as they assembled. Command and control centers could be disrupted, and transportation hubs and airfields could be attacked quickly. By having the ability to strike at the enemies ability to sustain combat, the theater CINC could affect the battle strategically rather than tactically.

Peacetime Operations

The theater CINCs and their staffs would develop an initial area within their theater where they could apply the SAR concept. Once established, they would designate targets within the area that would be appropriate for attack by B-52s. SAC teams would help the CINC and his staff select appropriate targets. A target list would be constructed and this would be forwarded to the unit that would be tasked to

support the CINC. Once the unit received the target list, the crews that would fly the missions would then be able to "... develop tactics, techniques, and procedures for conventional attack." (7:10) Then on a rotational basis the units would be deployed to the theater to become familiar with the local area, observe if possible any potential targets, and generally experience working with the forward located staff, responding to their taskings during exercises.

Permanently colocated with the CINC staff would be members of the SAC staff who would assist in selecting targets, planning exercises, advising in command and control procedures, and techniques best suited for employing the B-52s. Of course when forward deployed, the bombers would chop to the theater CINC.

Wartime Operations

During wartime operations the bombers would deploy in packages of 7 aircraft with support and WRSK. Munitions and FOL would be prepositioned at selected beddown bases. The aircrews would be prepared to respond to a maxi-frag. Maxi-frag is a "prioritized 30 day target list." (7:11) The crews would have already planned missions and tactics to support this precoordinated frag. As the conflict continued

the deployed staff could respond to updates to this frag, and if necessary, plan missions for special targets.

The strategic staff permanently assigned to the theater CINC, augmented by the deployed staff, would provide command and control for the unit. The forces would chop to the theater CINC for operations, and SAC would provide resupply, logistics, and augmentees for the deployed unit.

CHAPTER V

B-52 EMPLOYMENT

To completely exploit the current strength's of the B-52, it must be employed properly. Used correctly the planner will capitalize on it's long range, heavy load, all weather, day/night, low level capability. Ranging as much as 1000 nautical miles behind enemy lines, a B-52 loaded with a mix of standoff weapons and conventional bombs can significantly disrupt enemy operations.

An alternate method of attack would be as a purely standoff weapons delivery platform. It could loiter behind friendly lines and be tied into intelligence nodes that would allow it to deliver standoff weapons almost as soon as the requirement was identified.

However, today the real key to successful employment will be to operate behind the enemy lines with surprise. This is currently the optimum way to effect the outcome of the strategic battle. Flying at night, avoiding known defenses, and operating at low absolute altitudes using the on-board terrain avoidance system, will be the tactic used. The B-52 will operate alone, or in flights of up to three

aircraft. When multi-ship flights are planned, they will have near simultaneous time over targets to saturate the enemy defenses.

While operating without support aircraft is the most streamlined method of employment, this does not preclude using the old force packages employed so successfully during the missions over North Vietnam. The drawback is, of course, that so many aircraft are tied up supporting one mission. This is why the B-52 would be best used on targets where defenses are light to moderate, and extensive escort and suppression is not required. Careful selection of targets, ingress and egress routes, and the B-52s on-board capabilities for self-defense will make attrition both manageable and acceptable.

Managing Attrition

There is no doubt that "survivability is scenario dependent." (7:20) However, the commander can manage attrition by careful targeting, the use of aggressive and smart tactics, and intensive aircrew training. Also there are evolving technologies that promise to provide near-term, lethal defensive capabilities for the airplane. The aircraft has growth capacity to handle any defensive system currently envisioned. "Bottom line: analysts calculate attrition; operators manage it." (7:20)

Types of Missions

Under the SAR concept there are currently plenty of targets to assign to the B-52s. Offensive counter-air and interdiction sorties are where the bulk of the work is needed. Airfields, ports, and logistics facilities are always lucrative targets. In Europe, maritime interdiction would also be a good target. The B-52s could provide a serious disruption of any amphibious invasions of Norway, Jutland, or Turkey. They could also swing into the role of mining harbors and establishing mine barriers to coastlines. This could release tacair for other tasks.

Future Targets

The real future for the B-52 in the conventional battlefield is to be armed with advanced standoff munitions. A standoff capability puts a great many more targets at risk by the B-52. The aircraft still has the growth capability to accept a vast array of offensive and defensive systems. The real value would be with a standoff offensive capability to attack hard, point targets. The aircraft could loiter outside of threat range and deliver munitions in a variety of scenarios. For example, the B-52 could loiter behind the forward edge of the battle area and be targeted against first and second echelon forces in a real-time operation. Using an area saturation type of weapon, it could provide

immediate firepower to areas where a breakthrough is imminent. Targeted by a ground or other airborne asset, and using its great loiter capability, it could be on station for hours and carry up to 20 or more weapons on each sortie.

Another capability would be to arm the aircraft with lethal self defense weapons such as the experimental Tacit Rainbow missile. By having the capability to attack emitters, the aircraft could penetrate enemy defenses to strike targets such as bridges, bunkers, storage sites, command and control facilities, and runways. Lethal self-defense coupled with a standoff capability, and the ability of the aircraft to fly the long missions required to circumnavigate many threats, provides a deep strike threat for the CINC. It also frees the tacair to strike those targets that require great speed and maneuverability to approach successfully. In fact the B-52, properly equipped, could be a complementary defense suppression weapon. With threat emitter killers and standoff weapons it could strike many ground-to-air threats from a distance and help reduce attrition to the tacair fleet. One or two B-52s with the right mix of weapons could saturate an enemy air defense sector, kill surface-to-air weapons and allow the tacair assets to penetrate and kill hard targets. The real value lies in loiter capability and carrying capacity. The B-52

would be on station for long periods of time, with great firepower. It would also be able to operate in small numbers, thereby reducing the airborne congestion over the battlefield.

Flexibility for the CINC

With 75 or 100 B-52s equipped with standoff munitions and emission killers, a CINC would have a very potent weapons system at his disposal. Responsive, the aircraft could be put into an anchor orbit behind the forward edge of the battle area where it could respond immediately to a fluid ground battle. Put into a ground alert posture, it could be scrambled and fly several hundred miles in less than an hour to be on station to provide firepower to a ground commander under pressure. Coupled with tacair forces it could soften up a corridor with standoff weapons to allow the tacair to penetrate enemy air defenses to strike targets behind the forward edge of the battle area. Flying at night, at low level, it could circumnavigate air defenses to attack hard targets deep within enemy lines. Using the element of surprise it can even use overfly tactics on low to medium threat targets. The beauty of all of this capability is to allow the commander to use his tacair to gain air superiority, provide close air support for the army, and strike those targets that require fast movers to kill.

By taking the pressure off of the heavily tasked tacair, the B-52s can add a new demension to the air war.

Different Thinking

We can no longer think of the heavy bomber as only a deep strike, strategic weapon. If we are to use it successfully in the modern conventional battlefield we must begin to think of it in a tactical, and not strategic, sense. Long range no longer means only deep strike. It now means rapid response to a theater and the ability to range up and down the forward edge of the battle area as a mobile, standoff, firebase with great speed and responsiveness. Long range can also be converted to long time on station. If air refuled, time on station is greatly extended, but even without air refueling, you still can measure time on station in hours not minutes.

Working with forward observers and using a standoff weapon with a 100 to 150 mile range, possibly terminally guided from a third source, an airborne firebase concept is a realistic mission. With its own onboard defensive systems and standoff range, survivability would be enhanced. Able to detect hostile attacks the aircraft has the speed to quickly retreat within an umbrella of friendly air defenses. When the threat is countered it can just as quickly return to its station and continue its airborne firebase actions.

The key is that we must stop thinking of the long range, heavy bomber in its traditional role. The air defenses of the conventional battlefield are too lethal to employ the aircraft in old ways. But with the right mix of weapons it can add a new dimension to the conventional battlefield. Properly integrated, it can give a commander new flexibility in the use of his tacair. It can give him new capability for supporting the ground commander. It can provide rapidly deployable, tactical firepower that can influence the strategic outcome of the battle. Don't think of overflying a target to kill it; think of a standoff, airborne firebase that can kill almost every category of target. Only the weapons are needed to take full advantage of an existing, mature weapons system that has the trained aircrews and support infrastructure already on line. Even without the new weapons there is still a very credible capability with existing standoff weapons and overfly techniques that can be used to manage attrition. All that is required is to understand the employment tactics required and the limitations incurred by the use of existing weapons.

New Weapons

In order to keep this paper out of the classified category it is not possible to discuss future weapons capability. However, it is appropriate to say that the

capabilities required to turn the B-52 into a standoff platform, that can be integrated into the conventional battlefield, is very close to being a reality. While the B-52 currently possesses standoff capability with short range attack missiles and air launched cruise missiles, that capability needs to be enhanced with longer range weapons that have point accuracy. In addition, it requires a standoff weapon that had an area kill capability, and that is not far in the future. The capability is there. The B-52 already shoots the harpoon at ships, why not make the small investment required and give it the capability to allow the CINC to influence the land battle and free up his already overtasked tacair?

CHAPTER VI

IS INTEGRATION POSSIBLE OR DESIREABLE ?

Since WWI we have been trying to integrate the airplane into the conventional battlefield. This wonderful new technology has always seemed to be just a little out of sync as we have tried to apply theory after theory to actual practice. At first it was a matter of the establishment striking a reactionary note and really refusing to acknowledge the potential of this powerful new technology. Mitchell and Douhet, and other airpower pioneers and theorists, argued passionately for the inclusion of the airplane into war plans. (32:189) Admittedly some of the early theories proved lacking and overstated the case for airpower, but we must realize that for the first time the battlefield was truly three dimensional. Mitchell showed that aerial bombardment could put whole navies at risk, and if it could put navies at risk why not whole armies and countries? Douhet certainly believed that air fleets could win wars single handedly. "Command of the air means victory and to be beaten in the air means defeat and the necessity of accepting whatever conditions it may please the enemy to impose." (8:8) However, there was little hard evidence to prove any of the theories. WWI operations hardly scratched

the surface of the potential of airpower or how to best integrate it into the conventional battlefield.

When WWII started we still didn't know if the airplane was really the weapon we thought it was. But the Air Corps felt confident that strategic bombardment was the ideal way to use the airplane in war. (33:137) The heavy bomber was the centerpiece of our thinking and the use of massive formations and repeated raids on strategic targets was thought to be the war winning strategy. However, we were just a bit out of sync in our thinking that the heavy bomber could do the job alone. We soon found out that a determined enemy, with a fast fighter, could inflict unbearable losses on bomber formations, and as a result we had to modify our tactics and force structure to cope with the threat. (9:99) Nevertheless, when WWII ended it seemed as if we had revalidated our theories when the Enola Gay dropped the atomic bomb on Japan, and it appeared as if the airpower theorists had been right all along. The Air Force believed that airplanes could indeed be war winning on their own, and the proper method of integration would be no integration at all. "The organizational drive in 1945-46 was for an independent air force built around an atomic striking force of bombers." (16:6) Now all we needed was a few long range bombers equipped with nuclear weapons and we could win wars.

However, Korea and Vietnam changed our mind. The Air Force realized that nuclear weapons weren't appropriate for all conflicts where airpower was involved, and we needed to integrate the bomber back into the battle. In Korea we did it in a traditional manner, but in Vietnam for the first time bombers were used consistently in a role that was not strategic. We also discovered that it was possible to integrate the bomber into these tactical roles successfully and with great effect. Of course the reasons were certainly more political than military, but it did give us a new look at how to use strategic airpower on the conventional battlefield. (29:24)

Probably the most important thing we learned in Vietnam about the use of strategic airpower was that it did have a place in tactical situations, and it could influence the outcome of a ground battle quickly and violently. This lesson is still valid today. However, because of the lethality of the modern battlefield, especially in Europe, we need to make adjustments to how we employ these strategic assets in the conventional battle. These adjustments will hopefully put us in sync with how to apply the technology. The method of application has already been given in this paper's section on employment, so there is no need to restate it here. What is important is that if we

are to keep pace and use our technology correctly, we need to think differently about how to use the heavy bomber in conventional war, and how we integrate it into the battle.

CHAPTER VII

CONCLUSION

There is a place for the heavy bomber in today's conventional battlefield. We just need to look at it with a different perspective to understand how best to use it. All the traditional roles are still there, but when we add the SAR concept to the traditional roles then we have taken the steps necessary to fully integrate the capability of the heavy bomber into the modern conventional battlefield. Existing capabilities of range, speed, flexibility, heavy load capability, long loiter time, and standoff weapons make it an ideal platform for support of the warfighting CINC. For the first time it could be included into warplans and dedicated to a theater of operations. The CINC would have firepower at his disposal to blunt the leading wave of a ground offensive or the second or third echelons. It is a capability that we should develop to its fullest and resist the pressure to put it in the bone-yard as we have done with so many other systems that are still capable and proven. If we let this capability slip away we will probably never be able to regain it as we have had to do so many times before.

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